

CLAIMS

What is claimed is:

1. A transceiver comprising:
a receiver coupled to receive a signal at a first node, the receiver establishing a desired common mode voltage at the first node;
circuitry coupled to establish the desired common mode voltage at a second node; and
the first and second nodes defining at least a portion of a low impedance path during a first operating mode for diverting a signal received at the first node away from the receiver, and the first and second nodes defining a high impedance path during a second operating mode for enabling the signal received at the first node to be provided to the receiver.
2. The transceiver of claim 1, further comprising a switch device connected between the first and second nodes, the switch device operating to connect the first and second node to provide the low impedance path during the first operating mode, and the switch operating to disconnect the first and second node to define the high impedance path during the second operating mode.
3. The transceiver of claim 2, further comprising a controller coupled to operate the switch based on a selected one of the first and second operating modes.
4. The transceiver of claim 1, the receiver further comprising:
an amplifier having an output; and
a resistor coupled between the first node and the output of the amplifier.
5. The transceiver of claim 4, further comprising a feedback path coupled between an input of the amplifier and the first node to enable the desired common mode voltage to be provided at the first node, the output of the amplifier varying as a function of the signal received at the first node during the second operating mode.

6. The transceiver of claim 5, the circuitry further comprising an amplifier having an output that defines the second node and a feedback path between the second node and an input of the amplifier of the circuitry to establish the desired common mode voltage at the second node.
7. The transceiver of claim 1, further comprising a transmitter coupled to provide a transmitter output signal at a third node.
8. The transceiver of claim 7, further comprising an antenna connected between the first and third nodes.
9. The transceiver of claim 8, the antenna being configured to define a resonant circuit having a resonant frequency corresponding to the frequency of the transmitter output signal.
10. An integrated circuit comprising the transceiver of claim 1.
11. A communications apparatus comprising:
 - a receiver coupled to receive a signal at a first node, the receiver establishing a desired common mode voltage at the first node;
 - an amplifier coupled to establish the desired common mode voltage at a second node;
 - a switch device connected between the first and second nodes, the switch device operating to connect the first and second nodes to provide a low impedance path during a first operating mode, and the switch operating to disconnect the first and second node during a second operating mode;
 - a transmitter that provides a transmitter output signal at a third node having a desired carrier frequency;

an antenna coupled between the first and third nodes; and
a low impedance path coupled to the second node for diverting current away from the first node during the first operating mode.

12. The apparatus of claim 1, the receiver further comprising:

an amplifier having an output;
a resistor coupled between the first node and the output of the receiver amplifier; and
a feedback path coupled between an input of the receiver amplifier and the first node to enable the desired common mode voltage to be provided at the first node, the output of the receiver amplifier changing as a function of a signal received by the antenna during the second operating mode.

13. The apparatus of claim 1, at least the receiver, the amplifier, the transmitter and the switch comprising an integrated circuit.

14. A transceiver comprising:

means for receiving a signal at a first node and for maintaining a common mode voltage at the first node;
means for maintaining a common mode voltage at a second node;
means for connecting the first and second nodes during a first operating mode and for disconnecting the first and second nodes during a second operating mode.

15. The transceiver of claim 14, further comprising means for diverting electrical current away from the first node during the first operating mode.

16. The transceiver of claim 15, the means for diverting electrical current comprising a low impedance path coupled to the second node.

17. The transceiver of claim 14, further comprising
means for providing a transmission signal at a third node; and
antenna means for broadcasting the transmission signal during the first
operating mode and for receiving signals from free space during the second
operating mode, the antenna means being coupled between first node and the
second node.
18. A method to operate a transceiver, the method comprising:
establishing a common mode voltage at a first node to which a receiver is
coupled;
establishing the common mode voltage at a second node;
connecting the first and second nodes during a transmit operating mode to
provide a low impedance path for propagating a transmission signal away from the
first node; and
disconnecting the first and second nodes during a receive operating mode to
enable a signal provided at the first node to be detected by the receiver.
19. The method of claim 18, during the transmit operating mode, further
comprising providing a transmission signal to a third node, an antenna being
coupled between the first and third nodes so that the transmission signal is provided
to the low impedance path and away from the first node.
20. The method of claim 19, further comprising sensing the transmission signal
and adjusting transmit power of the transmission signal based on the sensed
transmission signal.
21. The method of claim 18, during the receive operating mode, further
comprising detecting a signal received at an antenna coupled to the first node.
22. The method of claim 21, the detecting of the signal further comprising
detecting the signal by varying an output signal provided at an output of an amplifier

as a function the signal received at the antenna while maintaining the common mode voltage at the first node, the output of the amplifier being connected to the first node through at least one impedance element.